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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,138

12/03/2003

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EXAMINER

DO, CHAT C

ART UNIT

PAPER NUMBER

2193

NOTIFICATION DATE

DELIVERY MODE

11/18/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/727,138	<b>Applicant(s)</b> SAHA ET AL.	
	<b>Examiner</b> Chat C. Do	<b>Art Unit</b> 2193	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 October 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1-7,11-13,15-18,27-29 and 31-33.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See below.  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

/Chat C. Do/  
 Primary Examiner, Art Unit 2193

Part 11: the applicant argues in pages 4-10 for the drawings objection for the following: (1) the independent claims do not use the exact language about the examiner complains/objecting; (2) Figures 3-5 with their description would disclosed the limitations "each of the butterfly operations....un-nested computation loop" for all independent claims; and (3) it is unclear from the objection as what the examiner means by the contention that the figures do not show the structure of computing in independent claims.

The examiner respectfully submits that objection is reasonably maintained because the following (1) the examiner rewrote the language of the claims while objecting for clarification purposes, the exact concerned limitation language is "each of the butterfly operations in each stage in the second set of stages has a single, un-nested computation loop" (claim 1 and similar for other independent claims). The examiner does not see the reflection of the above limitations in Figures wherein Figures 4-5 are just showing the hardware structure of the multi-processor, but the Figures of multi-processor does not showing the limitations that "each of the butterfly operations ....un-nested computation loop". Further, the above limitations in the last amendment is not exactly the same as the original language as alledged by the applicant wherein the original language states that each of the "radix-2" butterfly operation employs a single radix-2 butterfly computation loop without employing nested loops (obviously the case since radix-2 operation is the lowest butterfly operation element which only require a single radix-2 butterfly computation to complete, thus it does not need additional computation or nested computation to complete the radix-2 butterfly operation beside a single radix-2 butterfly). However, the last amendment limitation "each of the butterfly operations in each stage...un-nested computation loop" tends to mean each of the plurality of the butterfly operations (as a group of butterfly operations) in each stage in the second set of the stages has a single, un-nested computation loop is not seen in the Figures or their description; (2) As previously mentioned, Figures 3-5 do not show the alleged limitation since the Figures only show the structure of the multi-processor, if the applicant insists that Figures 3-5 show the above limitations, then all the multi-processor (same architecture) would disclose the above limitations; and (3) similarly all the independent claims has similar (more or less) limitations as argued above in their independent claims and the examiner makes the similar objection. Generally, if the applicant acknowledges that the last amendment limitations "each of the butterfly operation....un-nested computation loop" has exact meaning as the original limitation "each radix-2....employing nested loops", then the examiner is more than happy to withdraw the Figure objection and the rejection under 112<sup>th</sup> 1<sup>st</sup> paragraph.

The applicant argues in pages 10-11 that the examiner has not considered the specific arguments and evidence in the form of a declaration wherein the original claim 2 discloses a specific manner of distributing the remaining stages of the butterfly operations among the processors in an un-nested loop and further ones ordinary skill in the art would understand what is intended and know how to carry it out the argued limitations.

The examiner respectfully submits that the previous responses (including above) would reasonably address this specific argument wherein as part of the specification the original claim 2 only mentions how the butterfly operations are assigned to the processors in the multi-processor, but it does not mention anything about the language of "each of the butterfly operations in each .....un-nested computation loop". Again, the applicant merely argues that by doing this structure would enable this limitation/feature without providing citations within the original specification with reflecting the argued limitation language. Further ones ordinary skill in the art would know individually the term single un-nested computation loop, but ones may not know how to perform each of the (plurality/group) butterfly operations in each stage in the second set of the stages has a single, un-nested computation loop.

The applicant argues in pages 22-24 mainly for all independent claims that the cited secondary reference by Jaber fails to disclose the limitation "distributing the plurality of butterfly operations....among the parallel processors" as more or less limitations in all the independent claims since Jaber requires  $N/2P$  out of  $N/2$  coefficients are needed by all of the processors of Jaber all of the time and the entire set is needed by the combinational phase thus the stages of Jaber have data interdependencies among the processors.

The examine respectfully submits that feature is clearly seen in Figures 8-9 and col. 7 lines 30-37 wherein the citation specifically mentions that there is not data communicated in between the processors wherein the memory 804 is the coefficient memory not the data memory or result data of the computation. Thus, Jaber clearly discloses the data non-interdependency among processors.

The applicant argues in pages 25-28 as the new matter introduced into the amendment since the alleged limitations appears to be the limitations cited in original independent claim.

The examiner respectfully submits that the above limitations in the last amendment is not exactly the same as the original language as alledged by the applicant wherein the original language states that each of the "radix-2" butterfly operation employs a single radix-2 butterfly computation loop without employing nested loops (obviously the case since radix-2 operation is the lowest butterfly operation element which only require a single radix-2 butterfly computation to complete, thus it does not need additional computation or nested computation to complete the radix-2 butterfly operation beside a single radix-2 butterfly). However, the last amendment limitation "each of the butterfly operations in each stage...un-nested computation loop" tends to mean each of the plurality of the butterfly operations (as a group of butterfly operations) in each stage in the second set of the stages has a single, un-nested computation loop is not seen in the Figures or their description. Generally, if the applicant acknowledges that the last amendment limitations "each of the butterfly operation....un-nested computation loop" has exact meaning as the original limitation "each radix-2....employing nested loops", then the examiner is more than happy to withdraw the new matter rejection/objecton.